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10/580,117

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Gang Hyun Lee

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EXAMINER

CORMIER, DAVID G

ART UNIT

PAPER NUMBER

1711

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/580,117 | Applicant(s) LEE, GANG HYUN | |
| | Examiner DAVID CORMIER | Art Unit 1711 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 10, 12-16, 21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10, 12-16, 21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 05, 2010 has been entered.

Response to Arguments/Amendments

2. Claims 1-7, 10, 12-16, 21 and 22 are pending. Claims 1 and 10 have been amended. Claims 8, 9, 11, 17-20 and 23 have been canceled.
3. Claims 1, 3-4, 9, 10, 12 and 13 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1, 6-9, 14-16 and 19 of copending Application No. 10/580115. Applicant has not specifically argued the rejection; therefore, the rejection is maintained.
4. The rejection of Claim 23 under 35 U.S.C. 112, second paragraph, as being indefinite has been withdrawn in response to Applicant's amendments.
5. Claims 1-7, 10, 12-16 and 21-23 were rejected under 35 U.S.C. 103(a) as being unpatentable over Enokizono (US 5,337,500) in view of Kim (US 5,277,210). The Examiner notes that Claim 9 was inadvertently omitted from the text of the grounds of rejection, but the discussion regarding Enokizono and Kim is considered to also apply to

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Claim 9. Applicant's arguments filed January 05, 2010 have been fully considered but they are not persuasive. Specifically Applicant argues that Kim does not disclose or suggest a portion between the condensed water discharge port and the vapor exhaust port, the portion being inclined at a predetermined angle to dispose the condensed water discharge port lower than the vapor exhaust port. However, Kim was only relied upon for the teaching of using a vapor exhaust port for discharging dry air from a condensing duct (Kim, Figures 3 and 4). Applicant has not specifically argued the combination of Enokizono in view of Kim; therefore the position is maintained that it would have been obvious to one of ordinary skill in the art to modify the dishwasher of Enokizono so that it does not recirculate drying air, but instead exhausts dry air through a vapor exhaust port provided near the duct outlet where the condensed vapor is returned to the container. In Enokizono, the portion of the duct next to the condensed water discharge (Figure 1, 52) reads on the claimed inclined portion at a predetermined angle. Furthermore, one of skill in the art would recognize that the exact location of the vapor exhaust port in the duct 60, as long as it is provided after the heat exchanger 68, would yield no unpredictable results. MPEP 2144.04 (VI) (C) – Rearrangement of Parts.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

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from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1, 3-4, 10, 12 and 13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 6-9, 14-16 and 19 of copending Application No. 10/580115. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed structures are substantially identical.

8. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. **Claims 1-7, 10, 12-16, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enokizono (US 5,337,500) in view of Kim (US 5,277,210).**

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11. Regarding Claims 1-7, 10, 12-16, 21 and 22, Enokizono teaches a dishwasher having a washing chamber 14 for holding utensils which are washed and dried therein. The drying functions are performed using at least the following parts: a circulation duct 56 (air duct); heat exchanger 68 (condensing apparatus), condensate container 32 (condensed water discharge port), outside air duct 82 (vapor exhaust port), a first fan 72 (condenser fan), a second fan 86 (dryer fan), and a motor 74 which drives both the first fan and second fan together (motor).

12. The prior art, Enokizono illustrates a right-hand side of the duct (outside air duct 82) which reads on Applicant's claims for an "air duct", the left-side of the duct (rear duct 80) reads on "an outside of the air duct", therefore the first fan 72 (condenser fan) blows air along an outside of the air duct 82. Moreover, the fans 72, 86 of Enokizono read on Applicant's claims for cross-flow fans since they suction air and discharge air in a radial direction. Further Enokizono discloses ridges protruding a predetermined height from a floor thereof (the wavy interface of the heat exchanger 68).

13. Finally it is noted that although the second fan 86 (dryer fan) is formed in the path of the air outlet, it fully is capable of functioning as Applicant's dryer fan for "providing suctioning force to suction vapor from inside the tub", since the second fan 86 is fully connected to the dishwashing chamber 14 and since it is driven to help the flow of air in an outwardly direction, the air inside the chamber is thus forced/suctioned outwards by fan 86. It is well settled that the intended use of a claimed apparatus is not germane to the issue of the patentability of the claimed structure. If the prior art structure is capable of performing the claimed use then it meets the claim. In re Casey, 152 USPQ 235, 238

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(CCPA 1967); In re Otto, 136 USPA 459 (CPA 1963). Although fan 86 is not formed at the immediate outlet of chamber 14, it is still fully capable of forming a vacuum/suction effect by delivering air out of the chamber from the exiting part of the circulation duct 56 since fan 86 drives air out of the dishwasher.

14. The portion of the duct next to the condensed water discharge (Figure 1, 52) reads on the claimed inclined portion at a predetermined angle.

15. Enokizono does not expressly disclose the air duct having a vapor exhaust port spaced apart from the condensed water discharge port for exhausting vapor, from which the moisture has been removed, outside of the dishwasher.

16. Kim discloses a dishwasher which dries by using a fan 210 to blow ambient air into the tub while heating with a heater. Hot humid air is exhausted through air discharge outlet 204 into a condensing duct 100. The relatively dry air is discharged from the condensing duct through dry air discharge outlet 106, and the condensation is returned to the tub through condensed water tube 207. See col. 3, lines 49-67 and col. 4, lines 26-56.

17. Because it is known in the art to dry dishes using a recirculating duct, as taught by Enokizono, or a non-recirculating duct having a vapor exhaust port 106 and a condensed water tube 207, as taught by Kim, and the results of the modification would be predictable, namely, an effective means of drying dishes and reducing humidity, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the dishwasher of Enokizono so that it does not recirculate drying air, but instead is configured so that duct 60 sucks in ambient air at the duct entrance and exhausts dry

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air through a vapor exhaust port provided near the duct outlet where the condensed vapor is returned to the container 32. One of skill in the art would recognize that the exact location of the vapor exhaust port in the duct 60, as long as it is provided after the heat exchanger 68, would yield no unpredictable results. MPEP 2144.04 (VI) (C) – Rearrangement of Parts.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID CORMIER whose telephone number is (571) 270-7386. The examiner can normally be reached on Monday - Thursday 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Michael Barr/
Supervisory Patent Examiner, Art
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/DGC/
David Cormier
03/29/2010